CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 86-58
NPDES NO. CA 0028631

WASTE DISCHARGE REQUIREMENTS FOR:

NATIONAL SEMICONDUCTOR CORPORATION
SANTA CLARA, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. National Semiconductor Corporation, hereinafter called the discharger, by application dated June 17, 1986, has applied for renewel of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. The discharger is manufacturing integrated circuits using semiconductor manufacturing processes. De-ionized water (DI) is required by these processes. A reverse osmosis membrane system is used to produce DI water from tap water. The discharger currently discharges up to approximately 0.350 million gallons per day of reverse osmosis reject water to a storm drain tributary to Calabazas Creek and South San Francisco Bay, all waters of the United States.

3. The Regional Board adopted a Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Calabazas Creek and South San Francisco Bay and its tributaries.

4. The beneficial uses of Calabazas Creek and South San Francisco Bay are:

   a. Water contact recreation
   b. Non-contact water recreation
   c. Fish migration and habitat
   d. Wildlife habitat
   d. Esthetic enjoyment
   e. Industrial service supply
   f. Navigation
   g. Commercial and sport fishing
   h. Marine habitat
   i. Shellfish harvesting

5. The Basin Plan prohibits discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of 10:1 and also prohibits discharge of wastewater south of the Dumbarton Bridge. The Board finds that the proposed discharge does not have

particular characteristics of concern, provided the discharge limitations contained in this Order are met.

6. Effluent limitations and toxic effluent standards established pursuant to Sections 301, 304, and 307 of the Federal Water Pollution Control Act, and amendments thereto are applicable to the discharge.

7. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) for this point source discharge have not been promulgated by the U.S. Environmental Protection Agency. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, current plant performance, and best professional judgement. The limitations are considered to be those attainable utilizing BAT, in the judgement of the Board.

8. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

9. The Board has notified the discharger and interested agencies and persons of its intent to reissue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that, National Semiconductor Corporation, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following.

A. Effluent Limitations

1. The discharge of an effluent in excess of the following is prohibited:

		Units	Daily Maximum
a.	Total Dissolved Solids	mg/l	2000
b.	Chlorine	mg/l	0.0

2. The effluent shall not have a pH of less then 6.5 nor greater than 8.5.

3. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

TOXICITY:

The survival of Rainbow Trout test fishes in 96 hour boiassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

4. The discharge shall be limited to wastewater of the quantity and type described in Finding No. 2 of this Order.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Bottom deposits or aquatic growths;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended or deposited oil or other products of petroleum origin;

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Provisions

1. The discharger shall comply with all effluent and receiving water limitations and provisions of this Order immediately upon adoption.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in kg/d = Concentration Limit in mg/l x 3.79 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in the Self-Monitoring and Reporting Program adopted by the Board and as may be amended by the Executive Officer.

4. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

5. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulations (40 CFR 122.41K).

6. The discharger shall comply with all the items of the attached "Standard Provisions" dated April 1977 except Provisions and Requirements A.5, A.7, A.12, and B.5.

7. Pursuant to Environmental Protection Agency regulations (40 CFR 122.42(a)) the discharger must notify the Regional Board as soon as it knows or has reason to believe that a discharge of a pollutant not limited by this permit has or will occur.

8. This order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator of the U.S. Environmental Protection Agency has no objections. If the Regional Admnistrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

9. The requirements prescribed by this Order supercede the requirements prescribed by Order No. 81-20 adopted on May 20, 1981. Order No. 81-20 is hereby rescinded.

10. This Order expires on August 20, 1991. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 20,1986.

for
ROGER B. JAMES
Executive Officer

Attachments:
Standard Provisions & Reporting
Requirements dated April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

NATIONAL SEMICONDUCTOR CORPORATION

2900 SEMICONDUCTOR DRIVE

SANTA CLARA, SANTA CLARA COUNTY

NPDES NO. CA 0028631

ORDER NO. 86-58

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. Effluent

Station	Description
E-001	At any point in the outfall between the point of discharge of 001 and the point at which all waste tributary to that outfall is present.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis for Station E-001 shall be that given in Table I.

B. Reports shall be submitted on January 15, April 15, July 15 and October 15.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharage requirements established in Regional Board Order No. 86-58.

2. Does not include the following paragraphs of Part A:

   D.1, D.2a, D.3, D.4, E.2.b, E.4, F.3.f and F.3.g.

3. Is effective on the date shown below.

4. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

for
ROGER B. JAMES
Executive Officer

Attachment:
Table I (2 pages)

Effective Date 8/28/86

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001												
TYPE OF SAMPLE	G												
Flow Rate (mgd)	D												
BOD, 5-day, 20°C or COD (mg/l & kg/day)													
Chlorine Residual (mg/l)	D												
Settleable Matter (ml/l-hr. & cu. ft./day)													
Total Suspended Matter (mg/l)													
Oil and Grease (mg/l & kg/day)													
Coliform (Total or Fecal) (MPN/100 ml) per req't													
Fish Tox'y 96-hr. TL & Surv'l in undiluted waste	Q												
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Unit)													
pH (units)	D												
Dissolved Oxygen (mg/l and % Saturation)													
Temperature (°C)	D												
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO <5.0 mg/l) Total & Dissolved (mg/l)													
Arsenic (mg/l & kg/day)													
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)													
Copper (mg/l & kg/day)													
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day)													
Lead (mg/l & kg/day)													

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001	E-001										
TYPE OF SAMPLE	G	O										
Mercury (mg/l & kg/day)												
Nickel (mg/l & kg/day)												
Zinc mg/l & kg/day)												
Phenolic Compounds (mg/l & kg/day)												
All Applicable Standard Observsations		W										
Bottom Sediment Analyses and Observations												
Tot. Ident. Chlori. Hydrocarbons (mg/l & kg/day)												
Total Dissolved Solids (mg/l & kg/day)	D											

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-intergrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous